# U.S. Department of Agriculture Grain Inspection, Packers and Stockyards Administration 1400 Independence Ave., SW Washington, D.C. 20250-3600

# EQUIPMENT HANDBOOK Chapter 4 10-04-96

## CHAPTER 4

## DOCKAGE TESTERS

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## CHAPTER 4

#### **DOCKAGE TESTERS**

## 1. INTRODUCTION

The dockage tester (figure I) is used to mechanically separate the various components of a grain or rice sample according to particle size and weight. For official purposes, use only dockage testers that are: (I) a type and model approved by FGIS; (2) maintained in good operating condition; (3) properly adjusted; and (4) tested and examined at the prescribed intervals, in the proper manner, and found to be within tolerance.

- 1 Feed hopper
- 2 Air exhaust
- 3 Feed roller access
- 4 Drive belt cover
- 5 Butyl-rubber stoppers under metal washers
- 6 Sieve carriage bumper

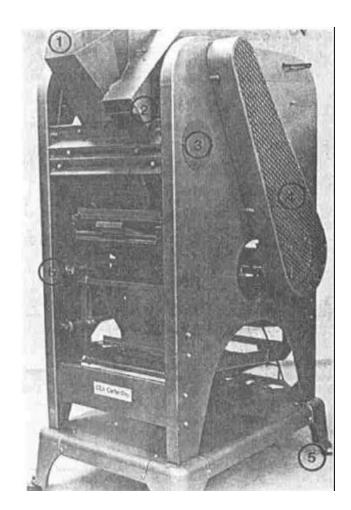


Figure 1, Carter Day Dockage Tester

#### 2. TOLERANCES

- a. Wheat Dockage Removal.
  - (1) Air Separation:  $\pm 0.10$  percent, mean deviation from Standard dockage tester using Hard Red Winter wheat.
  - (2) Riddle Separation:  $\pm 0.10$  percent, mean deviation from Standard dockage tester using Hard Red Winter wheat.
  - (3) Sieve Separation:  $\pm$  0.10 percent, mean deviation from Standard dockage tester using Hard Red Winter wheat.
  - (4) Total Separation:  $\pm$  0.15 percent, mean deviation from Standard dockage tester using Hard Red Winter wheat.
- b. <u>BCFM Removal</u>:  $\pm 0.20$  percent, mean deviation from Standard dockage tester using corn.

#### 3. MAINTENANCE AND ALIGNMENT

- a. <u>General</u>. Maintain dockage testers in good operating condition. Check and align them prior to initial use and periodically thereafter.
- b. <u>Placement</u>. Position the dockage tester so there is sufficient working space for changing sieves and riddles, cleaning and maintaining the tester, and handling the samples. In facilities with a weak floor, install the tester above or near a floor beam.

#### c. Leveling.

- (1) Check the lengthwise levelness with the spirit level mounted on the side of the tester. Make adjustments by placing shims under the legs. If butyl-rubber stoppers are used, place steel washers as shims between the stoppers and legs. (See figure 1.)
- (2) Check lateral levelness by observing the distribution of a light stream of wheat as it flows down the No. 2 sieve. (If a No. 2 sieve is not available, use some other sieve and the most appropriate grain.) If the grain flows down the middle of the sieve, the lateral levelness is satisfactory.

If the grain flows to one side of the sieve, place shims under the appropriate pair of legs to correct the grain flow.

## d. Sieve Vibration.

- (1) For uniform sieving results, sieve vibration must be kept to a minimum, particularly when the No. 2 (reclaiming) sieve is used in the bottom position. The recommended allowable deviation of the over-the-bottom separation is  $\pm$  0.10 percent mean deviation from Standard; however, this is a guideline for adjustment purposes--not a tolerance.
  - (a) Some sieves will vibrate more than others when used in the bottom position. When two No. 2 sieves are used in combination, place the sieve with the smoothest sieving action in the bottom carriage.
  - (b) If needed to minimize the vibration caused by the tester, install No. 10 butyl-rubber stoppers under the tester's legs.
  - (c) Assign all wheat sieves an identification number. In addition, identify the No. 2 sieve used in the middle sieve carriage as Middle or M and the sieve used in the bottom sieve carriage as Bottom or B.
- (2) The top sieve carriage is designed so that the sieve will fit loosely in the retainer. The floating action, as well as the jarring effect, keeps the sieve clean. The beneficial sieve cleaning action is lost if the sieve is held tightly in the top sieve carriage; trimming the sieves will help to ensure this floating action. Using shears, trim both corners of the discharge end as indicated.

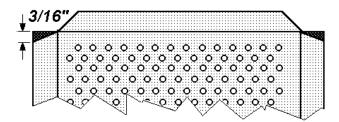
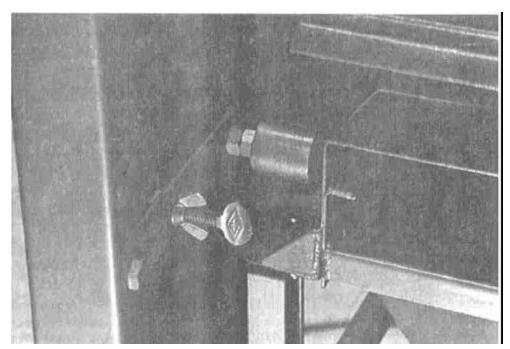


Figure 2, Top Sieve

- (3) Sieves used in the upper sieve carriage may crack or split along the edge of the discharge end. Repair or replace sieves when these cracks appear.
- e. <u>Sieve Carriage Bumper</u>. For a dockage tester used for grain inspection work, ensure that the sieve carriage bumper (figure 3) is removed or adjusted so as to be inoperative. The sieve carriage bumper may be used for rice inspection work.



**Figure 3, Sieve Carriage Bumper** 

- f. <u>Sieve Cleaning Attachment</u>. Ensure that the sieve cleaning attachment is properly adjusted. If the attachment is causing sieve vibration problems, do not use the assembly.
- g. <u>Drive Chain Tightener Assembly</u>. Check the tension of the sieve carriage drive chain. Adjust the chain idler on the drive chain tightener assembly so that just enough pressure is applied to make the chain operate smoothly with no appreciable slack.

Caution: Unplug the tester prior to adjusting the chain idler.

- h. <u>Riddle Condition</u>. Check riddles for material which has lodged in the ports. Remove material with grain forceps or other suitable tools, not by dropping the riddle on a hard surface. Replace or repair riddles having ports that are warped or separated.
- i. <u>Aspirator Screen</u>. Examine the screen for punctures, tears, clogging, and separation from the frame. Replace damaged screens.
- j. Aspirator Housing. Inspect the housing for leaks and seal as necessary.
- k. Fan Wheel. Inspect and clean as needed.
- l. <u>Feed Gate</u>. Check the feed gate for alignment with the hopper. If samples feed unevenly, realign the feed gate.
- m. <u>Feed Roller</u>. Check the feed roller for scoring and wear, and replace if the condition of the roller is preventing the smooth and even feeding of material through the feed gate. (Instructions for replacing the feed rollers are given on page 4-14.)
- n. <u>Noise Reduction</u>. Listen to the dockage tester in operation. If it is too loud, replace the bushings and rubber mounts, tighten the drive chain, and lubricate all moving parts.
- o. Power Cord. Inspect for wear.

#### 4. ADJUSTMENTS

- a. <u>General</u>. After the maintenance and alignment checks on a new (or recently repaired) dockage tester have been performed and all appropriate adjustments have been made, the tester's camshaft speed, feed rate, and air control shall be adjusted.
- b. Adjusting the Camshaft Speed.
  - (1) Adjust the speed of the camshaft to 147 revolutions per minute (rpm)  $\pm 1$  rpm. To determine whether the shaft speed is correct, turn the tester on and count the number of "kicks" per minute or observe a rpm indicator

- placed on the camshaft. To ensure accuracy, take three readings and average the results.
- (2) If the camshaft is not revolving at  $147 \text{ rpm} \pm 1 \text{ rpm}$ , adjust the motor drive pulley (figure 4). This pulley consists of two sections mounted on a threaded shaft. Adjusting the outer section causes the drive belt to ride higher or lower on the pulley, changing the belt speed.



Figure 4, Camshaft Pulley Assembly

- (3) To adjust the camshaft speed:
  - (a) Unplug the tester and loosen the setscrew located on the outer section of the pulley (figure 4).
  - (b) Rotate the outer section clockwise to increase speed or counterclockwise to decrease speed. A quarter turn adjustment will usually change the camshaft speed 3 to 4 rpm.
  - (c) Tighten the setscrew, recheck the camshaft speed, and readjust if necessary.

Note: When the drive belt is replaced, check and readjust the camshaft rpm at least weekly, as the new belt seats into place.

## c. Adjusting the Feed Rate.

- (1) Adjust the feed rate so that a sample of dockage-free wheat will clear the feed hopper in 30 to 33 seconds.
- (2) To determine whether the feed rate is correct, prepare a test sample of Hard Red Winter wheat. (If Hard Red Winter wheat is not available, contact the nearest FGIS field office or FGIS Headquarters for assistance.) The wheat samples shall consist of 1,000 g of dockage-free wheat, of approximately 60 lb/bu test weight.
- (3) Loosen the feed control wing nut retainer, set the feed rate to No. 6, tighten the wing nut retainer, and turn the dockage tester on. Then, pour the sample into the hopper while simultaneously starting a stopwatch. Stop the watch when the sample clears the hopper and note the time.
  - (a) If the sample clears the hopper in less than 30 seconds, retard the feed-control knob (move slightly toward the "0" position).
  - (b) If the sample clears the hopper in more than 33 seconds, advance the feed-control knob.
  - (c) Recheck the feed rate and readjust, if necessary.
  - (d) When the correct feed setting has been determined, tighten the wing nut which puts tension on the shaft.
  - (e) Loosen the setscrew which fastens the knob to its shaft.
  - (f) Align the knob with the No. 6 setting and retighten the setscrew.
  - (g) Recheck the feed rate to ensure that the final adjustment is correct.

## d. Air Control Operation.

- (1) Air-Control Knob. Determine that the air-control knob (figures 5 and 6) is tight on the shaft and does not have a tendency to slip when the knob is turned from one position to another. If the knob rocks on the shaft, the setscrew has probably worn a groove in the shaft. Before any air adjustment is made, correct the knob slippage problem by either: (1) turning the shaft to a new position; (2) reversing the ends of the shaft; or (3) installing a new shaft.
- (2) Air-Control Valve. Determine whether the air-control valve (figures 5 and 6) is completely closed when the air-control knob is in the extreme clockwise position. Check the position of the air-control valve by exerting counterclockwise pressure on the air valve arm with the fingers. If the check shows the air-control valve is closed when the control knob is in the No. I position, the air-control valve is adjusted. However, if the check shows that the air-control valve is not completely closed, or if the air-control valve is closed before the indicator reaches the No. I position, the air-control valve must be adjusted.

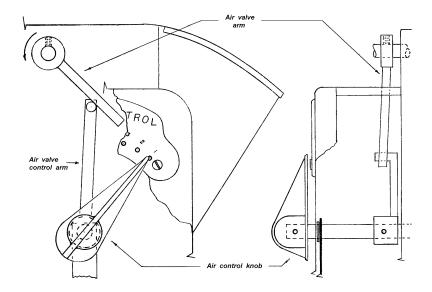


Figure 5, Air Control Assembly (XT-1)

Note: When adjusting the air-control valve, keep in mind that a slight discrepancy in the adjustment of the air-control valve significantly affects the amount of material removed. Therefore, all settings must be precise.

- (a) Adjusting the Air-Control of Model XT-l.
  - Loosen the setscrew in the air-control valve arm. (See figure 5.) Hold the arm in the No. I position, and advance the air-control knob. Retighten the setscrew in the aircontrol valve arm.
  - 2) Loosen the setscrew on the air-control knob. Press the valve arm counterclockwise, using just enough pressure to completely close the air-control valve. Tighten the locking nut which puts tension on the control valve for holding it in this position. With the setscrew loosened, rotate the aircontrol knob until the indicator is in the No. I position, then retighten.
  - 3) Set the air-control knob to position No. 4 and the feed control to position No. 6.
  - 4) Using wheat samples with known amounts of air dockage (such samples may be obtained from the nearest FGIS field office), adjust the air-control knob until proper results are obtained. Loosen the setscrew in the air-control knob, rotate the air-control knob until the indicator is in the No. 4 position, then retighten.
- (b) Adjusting the Air-Control of Model XT-2 and Model XT-3.
  - 1) Loosen setscrew A. (See figure 6.) Grasp the air-control valve shaft with thin-nose pliers and turn the shaft counterclockwise as far as possible.
  - 2) Hold the shaft in this position, turn the air-control knob to the No. l position, and tighten setscrew A. (When the air valve is closed completely at the No. l position,

- the maximum setting obtainable with the air-control knob will be considerably less than No. 7.) For standard models that have not been modified, set the air-control knob to position No. 4 and the feed control to position No. 6.
- 3) For models with the flax modification, set the original air-control knob to the maximum open position (approximately No. 7). This control will remain in the maximum open position when air is applied. Set the air-control knob on the new assembly to No. 4 and the feed control to position No. 6. Return the valve to closed position when aspiration is not to be applied; i.e., corn or sorghum.
- 4) Using wheat samples with known amounts of air dockage (such samples may be obtained from the nearest FGIS field office), adjust the air-exhaust valve until proper results are obtained.

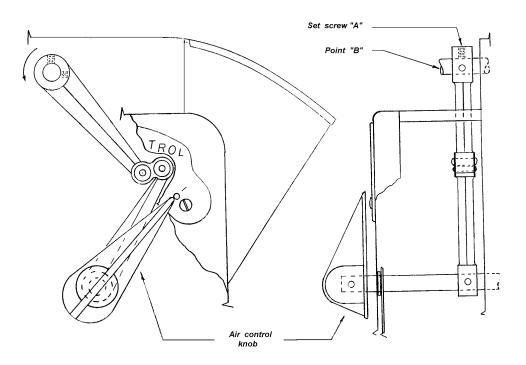


Figure 6, Air Control Assembly (XT-2 and 3)

#### 5. TESTING

a. <u>General</u>. Test each dockage tester according to the testing schedule (periodic tests) and whenever the accuracy of the tester is in question, including after all repairs (supplemental tests).

## b. <u>Test Preparations</u>.

- (1) Initial, Periodic, and Supplemental Tests.
  - (a) The testing office (FGIS Headquarters, in the case of field office Standard testers, or the field office, in the case of all other testers) shall prepare three test samples of Hard Red Winter wheat.
    - 1) The wheat samples shall consist of approximately 980 grams of dockage-free wheat and 20 grams of dockage.
    - 2) The fine dockage used for test samples should consist of cracked wheat and fine seeds of the type generally found in Hard Red Winter wheat. Avoid using wheat containing mustard seed, pigeon grass seed, or wild buckwheat when preparing test samples.
    - 3) The dockage should consist of: Riddle dockage-5 g, air dockage-5 g, and sieve dockage-10 g.
  - (b) The testing office shall test the samples using the Headquarters
    Standard or field office Standard; next, place them in moistureproof metal cans, numbered from one to three; and then, send them
    to the appropriate office for testing.
  - (c) Each test sample shall be tested in accordance with the test procedures.

- (2) Carter- or Emerson-Type Testers Used for Corn.
  - (a) The testing office shall prepare three test samples of yellow corn. The corn samples shall contain approximately 3.0 percent broken corn and foreign material.
  - (b) The testing office shall test the samples using the Headquarters Standard or field office Standard; next, place them in moisture-proof metal cans, numbered from one to three; and then, send them to the appropriate office for testing.
  - (c) Each test sample shall be tested in accordance with the test procedures.

#### c. Test Procedures.

- (1) Thoroughly clean the dockage tester. Insert the appropriate sieves and riddles, and set the air and feed controls to the proper positions.
- (2) Empty the first sample into a hand sieve bottom pan and mix it thoroughly. The light air dockage may tend to cling to the containers; make an extra effort to retain all components of the sample. (Do not weigh the samples. Calculations shall be based on 1,000 grams.)
- (3) Turn the tester on and pour the sample into the hopper.
- (4) While pouring the sample into the hopper, activate a stopwatch. After the sample has cleared the hopper, note the time that has elapsed and record it on a form FGIS-928, "Dockage Checktest." After the sample has cleared the middle sieve, stop the stopwatch and record the total time that has elapsed on the form FGIS-928. While the dockage tester is still running, lightly tap the sieves so that all material is expelled.
- (5) Turn the machine off.
- (6) After the machine has stopped, clean the riddle and sieves, and place any material that was lodged in them into the appropriate separation pan.
- (7) Pour the air, riddle, over-the-bottom sieve, and through-the-bottom sieve separations, as applicable, into individual pans.

- (8) Weigh each separation to 0.01 g and record the results on the form FGIS-928.
- (9) Place each separation into individual envelopes identified by sample number and type of separation; place the dockage-free sample in a plastic bag with proper identification.
- (10) Test the second and third samples in the same manner as the first. Record the results on the form FGIS-928. Place the separations in identified envelopes and the samples in plastic bags.
- (11) Return the dockage separations and the dockage-free samples in moisture-proof containers to FGIS Headquarters or the field office, as appropriate. Include a properly completed form FGIS-928.
- (12) Upon receipt of the returned forms and samples, FGIS Headquarters or the field office, as appropriate, shall complete the form by recording their test results and then comparing the results of the two tests. If the average variations of the test results are within allowable deviation, the tester is acceptable.
- (13) In the case of out-of-tolerance equipment, document all pertinent facts and actions (including adjustments, retests, and follow up actions) on the form FGIS-928.
- (14) After evaluating the test results, return the original copy of the completed form FGIS-928 to the test unit operator. A copy of the form shall be retained by the testing office.

#### d. Test Procedures - Corn Only.

- (1) Carter dockage testers which are only used for determinations of BCFM must be tested using wheat initially. Subsequent testing of Carters and all testing of Emersons may be performed using corn.
- (2) For Carter dockage testers perform preliminary testing and standardization checks as done for wheat, except the corn sample shall be required to clear the sieve in 50- to-60 seconds. This may not be

obtainable at the No. 10 setting. If not, adjust the controls, as necessary.

#### 6. REPAIRS AND MODIFICATIONS

- a. Feed Roll Replacement.
  - (1) Disconnect the power.
  - (2) Loosen the two setscrews and remove the sprocket and chain from the right-hand side of the feed roll shaft. Remove paint and setscrew scars from the shaft by sanding and scraping.
  - (3) Remove the flanged bearing from the feed roll (left side for model XT-1, right side for models XT-2 and XT-3). The flanged bearing is fastened at the side of the feed hopper with two machine screws. Removing the lower screw is difficult because the nut is located on the inside of the hopper. The screw should be removed with a large-blade, close-fitting screwdriver.
  - (4) Remove the feed roll by withdrawing it through the hand opening.
  - (5) Before placing the new feed roll into position, place a new 1/4-inch by 3/4-inch hex-head cap screw in the lower screw location with the head on the inside of the hopper. The screw can be inserted readily if the feed control is held in the wide-open position.
  - (6) Place the new feed roll in the proper position in the hopper.
  - (7) Return the bearing to its original position by slipping the lower projection over the previously inserted cap screw while the head is held from the underside. Replace the upper machine screw and tighten nuts.
  - (8) Replace sprocket and chain. Align sprocket and tighten setscrews.
  - (9) Check the camshaft speed and the feed gate alignment.
  - (10) Standardize the feed gate setting for the correct rate of feed.
- b. <u>Installation of Modified Air-Control Assembly on Models XT-2 or XT-3 (Flax-Modification).</u>

- (1) Remove the air-exhaust valve and the final section of the air-exhaust from the air-exhaust pipe.
- (2) Remove the air-exhaust valve from the modified air-control assembly to allow room for installing bolts supplied with this assembly.
- (3) Install the modified air-control assembly with the bolts supplied with the modified air-control assembly.
- (4) Seal the outside joint of the new and original exhaust pipe sections by using a silicone sealant or other suitable adhesive that will not be tacky after curing.
- (5) Replace the air-exhaust valve in the modified air-control assembly so that the air-control knob pointer is at position No. 1 when the valve is completely closed.

## c. <u>Laboratory Dust Removal Systems.</u>

- (1) A laboratory dust removal system that controls dust from the dockage machine should not be connected directly to the exhaust. There should be an open area between the tester's exhaust and the intake of the dust removal system. Most have a "stand off" connection that includes vents and cutouts to allow free flow of air. The open area should allow air to come from the vicinity of the discharge spout, rather than from the spout itself.
- (2) The dust system has to be connected so that the dockage tester will operate and perform in exactly the same manner, with the same settings, whether the laboratory dust system is on or off.
- (3) The setup shall be tested upon installation and documented on the form FGIS-928, "Dockage Checktest."

- d. Rocker Arm Adjustment for High OBS. Sometimes a dockage tester may consistently yield high over-the-bottom (OBS) material and perhaps low throughthe-bottom sieve (TBS) material. Low TBS may be increased by decreasing a high air separation, since Air and TBS have an inverse relationship. However, if the air is not in need of adjustment and the TBS is low (possibly coupled with high OBS) you should:
  - (1) Replace the #10 rubber stoppers on the machine base, or
  - (2) Decrease the length of the rocker arm stud (part 16912). This is located on the middle/bottom sieve box. Movement of the sieve box should be approximately 9/16 inch. The length of the rocker arm stud on most dockage testers is approximately 2- 9/16 inch.

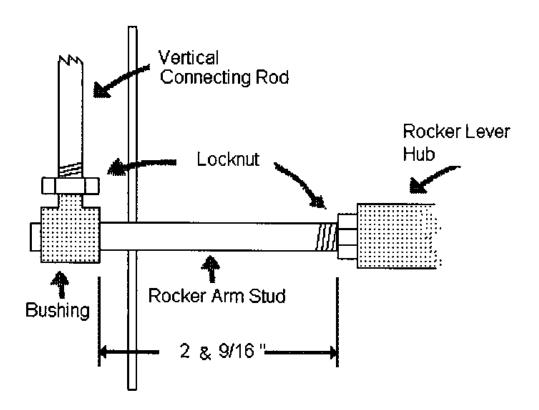


Figure 7, Rocker Arm

#### 7. SUNFLOWER SEED CALIBRATION

## a. General.

- (1) Calibrate each dockage tester that will be used to inspect sunflower seed prior to testing sunflower seed and whenever the internal air-control adjustment is changed.
- (2) Calibration goal:  $\pm$  0.50 percent dockage, mean deviation from Standard dockage tester using sunflower seed.
- (3) Only dockage testers that are in tolerance for wheat may be calibrated for sunflower seed. After calibration, the dockage testers shall henceforth be tested only with wheat.

## b. Calibration Preparations.

- (1) FGIS Headquarters shall prepare calibration samples of sunflower seeds. The sunflower seed samples shall consist of 575 grams of dockage-free sunflower seed and 25 grams of dockage. The dockage should consist of: riddle dockage-5 g, air dockage-10 g, and through-the-bottom sieve dockage-10 g.
- (2) Six samples shall be provided for calibrating each field office and agency tester.
- (3) The samples shall first be tested by FGIS Headquarters using the Headquarters Standard; next placed in moisture-proof metal cans, numbered from one to six; and then, mailed to the field office or agency for testing.
- (4) Each sample shall be tested in accordance with the following calibration procedures.

#### c. Calibration Procedures.

- (1) Thoroughly clean the dockage tester. Insert the #3 sieve in the top carriage, #8 sieve in the bottom carriage, and the sunflower seed riddle in its holder. Set the air control at 6 and the feed control at 7 1/2.
- (2) Empty the first sample into a hand sieve bottom pan and mix it thoroughly. The light air dockage may tend to cling to the containers; make an extra effort to retain all components of the sample. (Do not weigh the samples. Calculations shall be based on 600 grams.)
- (3) Turn the tester on.
- (4) While pouring the sample into the hopper, activate a stopwatch. After the sample has cleared the hopper, note the time that has elapsed and record it on a form FGIS-928, "Dockage Checktest." After the sample has cleared the bottom sieve, stop the stopwatch and record the total time that has elapsed on the form FGIS-928. Allow the machine to run until the riddle separation has cleared the riddle.
- (5) Turn the machine off.
- (6) Clean the riddle and place any material that was lodged in it into its separation pan. Clean the sieves and place any material lodged in them into the clean sample.
- (7) Put the air, riddle, over-the-bottom sieve, and through-the-bottom sieve separations into individual pans. Do not hand adjust.
- (8) Weigh each separation and record the results on the form FGIS-928, shown to 0.01 g.
- (9) Place each separation into individual envelopes identified by sample number and type of separation; place the dockage-free sample in a plastic bag with proper identification.
- (10) Compare the weight of the air separation to the known air separation weight for that sample and adjust the air to "0" deviation.
- (11) Test the second and third samples in the same manner as the first. Record the results on the form FGIS-928. Place the separations in identified

envelopes and the samples in plastic bags. After each test, correct the air setting as needed. If the dockage tester is not in line after the third test, call FGIS Headquarters.

- (12) After the dockage tester is calibrated, mark the air setting.
- (13) Test the fourth, fifth, and sixth samples in the same manner as the first three. Record the results on the form FGIS-928. Place the separations in identified envelopes and samples in plastic bags.
- (14) Hold the dockage separations and the dockage-free samples until notified.
- (15) Return the completed form FGIS-928 to FGIS Headquarters.
- Upon receipt of the returned forms, FGIS Headquarters shall complete the forms by recording their test results and then comparing the results of the two tests. If the average variation of the test results is within the allowable deviation ( $\pm$  0.5 percent total dockage), the tester calibration is acceptable.
- (17) After evaluating the test results, the original copy of the completed form FGIS-928's shall be returned to the test unit operator. A copy of the forms shall be retained by FGIS Headquarters.

# Form FGIS-928, "DOCKAGE CHECKTEST"

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	ON (Subtrac				26				+	•		<del>                                     </del>	
deviation	larger to asc from standa	ird)							+		<u> </u>	<del> </del>	
ALLOWABLE DEVIATION 27				0.1	0% ———	0.10%	0.10% 0		0.15%				
RESULTS	S (Indicate	'In" or "Out	" of lolerance.)	28									
REMARI	KŞ					_							
						29							
SUMMAI	RY BY		<u></u>								DATE		
					30						31		

## <u>INSTRUCTIONS FOR COMPLETING</u> FORM FGIS-928, "DOCKAGE CHECKTEST"

- 1. Date mailed.
- 2. Field office that performed the test, when applicable.
- 3. Agency that performed the test, when applicable.
- 4. Location of test unit dockage tester.
- 5. For tests using wheat, show: air 4, feed 6, riddle 2. For tests using corn, show: air 1, feed 10, riddle n/a.
- 6. For tests using wheat, show: top n/a, middle 2 & I.D. No., bottom 2 & I.D. No. For tests using corn, show: top 3, middle n/a, bottom n/a.
- 7. Make of the test unit dockage tester.
- 8. Model of the test unit dockage tester.
- 9. Serial number of the test unit dockage tester.
- 10. Time elapsed for each sample to clear the hopper, shown in whole seconds.
- 11. Time elapsed for each sample to clear the middle sieve, shown in whole seconds.
- 12. Weight of the separation that passes over the riddle, shown to 0.01 g.
- 13. Weight of the separation that is removed by air, shown to 0.01 g.
- 14. Weight of the separation that passes through the bottom sieve, shown to 0.01 g.
- 15. Total dockage (riddle, air, and through-the-bottom), shown to 0.01 g.
- 16. Weight of the separation that passes over the bottom sieve, shown to 0.01 g.
- 17. Averages of the test unit's hopper and sieve clearance times, shown in whole seconds.
- 18. Averages of the test unit's test results, shown to 0.01 g.
- 19. Convert the average separation weights to a percentage of the total sample weight, shown to 0.001 %.
- 20. Name of the person who tested the unit.
- 21. Date that testing of the test unit was completed.
- 22. Test unit operator's remarks and RPM information.
- 23. Standard unit's information and test results (See 7-22).
- 24. Test unit's average test results, shown to 0.01 %.
- 25. Standard unit's average test results, shown to 0.01 %.
- 26. Difference (24 minus 25). Show the plus or minus deviation.
- 27. Allowable deviations.
- 28. Indicate IN or OUT of tolerance for each type of separation.
- 29. Remarks
- 30. Name of person who completed the Summary section.
- 31. Date the summary was completed.